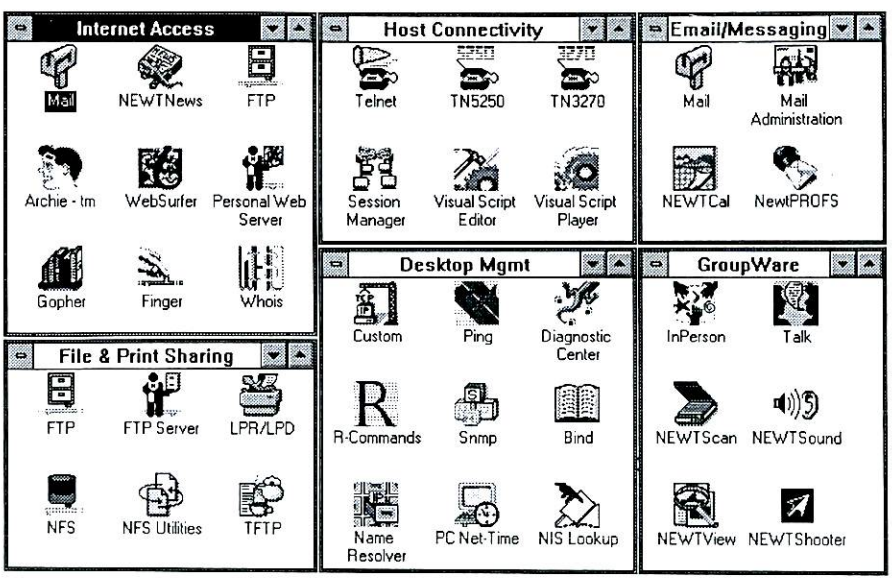
The
INTER.CONNECTIVITY.NET™
Internet Edition
Newsletter £1

Chameleon Extends its Reach



Newly released chameleon 4.5 TCP/IP Applications for Windows

Since the availability of TCP/IP on PCs, we have seen a variety of TSR, DLL and VxD-based products being produced. Chameleon has always enjoyed a significant presence in the market - providing a high speed Windows DLL/VxD TCP/IP kernel with full featured applications.

This market has changed quite recently. We know of Microsoft releasing a TCP/IP VxD kernel in its standard Windows'95 offering - what happens to the market leaders such as NetManage's Chameleon and

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Advertise on the Net

Are you one of many organsisations wishing to test the response to marketing and disseminating information over the Net? Are you also concerned that the cost of connecting, the technicalities, its management and the security implications may well be prohibitive?

To provide people with the opportunity to check out the Net, a service is now available which allows organisations to make their information available on Integralis' Web server.

The service includes professional page design (via a design bureau), installation, management and maintenance. Integralis will also be able to provide statistics of usage and manage responses to campaigns and promotions.

If this service is of interest to you, tick the box on the back page or call us and ask for Internet Services.

If you have any questions regarding products and services provided by Integralis, please call 01734 306060 or email info@integralis.co.uk

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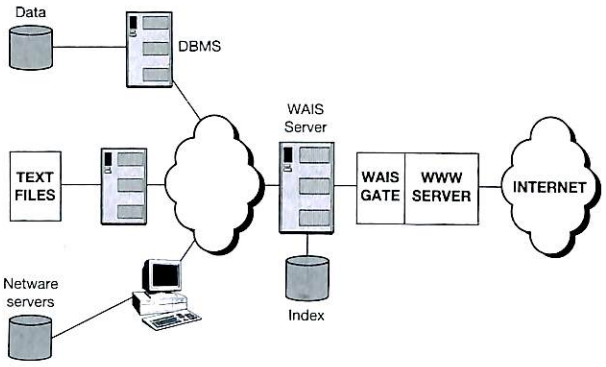
How WAIS can help untangle your Web

The World Wide Web is a logical network of computers which loosely couple to provide seamless access to a wealth of information. Using Windows front end systems such as NetScape and NetManage WebSurfer you have a point and click interface for simple manoeuvrability using hypertext which offers text, graphics, sound, buttons and even animation. This is excellent for Internet surfing, but what about your internal system? A large number of applications require a user to be able to search through vast amounts of information in some form of database. A good way to do this would be to use Web servers internally. This has a number of advantages, including being able to use the same interface to reach both Internet and internal services.

If you have an information service which requires frequent updates, based on ever-changing information creating these pages in Hypertext Markup



Language (HTML) can be quite a chore. In this situation WAIS can help. WAIS stands for Wide Area Information Server and is a standard based on the Z39.50 protocol.

WAIS is capable of performing fast searches for information in large databases and, with its HTML gateway, it can offer access to such information using Web browsers e.g. NetScape and WebSurfer.

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Chameleon 4.5

FTP's On Net/PCTCP when these TCP/IP kernels become 'commodity' items? The answer is for TCP/IP vendors to focus on the kernel-compliant applications.

NetManages answer to this is in their new Chameleon v4.5. This release of Chameleon is split into 6 Application Suites totalling 42 applications.

Hot Enhancements since Chameleon v4.01:

- An enhanced Telnet (supporting VT320 WYSE50 and WYSE60)
- Further enhanced TN5250 and TN3270 applications
- A new Internet WWW Browser and personal Internet WWW Server!
- An Internet Offline UseNet NewsReader
- A new NTP (Network Time) Client
- A new Internet Archie Client
- NIS/DHCP and InetD support
- Berkeley R Commands
- OEMSETUP for Workgroups installation
- SLIP/PPP Dial-on-Demand support

Chameleon v4.5's applications will run over your existing TCP/IP product via the common WinSock API - Lan Workplace for DOS, FTP PCTCP, Sun PCNFS, Wollongong etc...

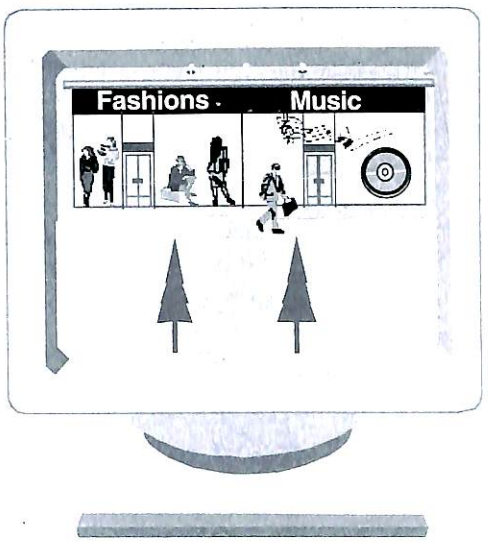
If you would like to discuss your specific TCP/IP requirements then contact us. Alternatively, tick the box on the back of the sheet.

The future from games?

Played any good PC games lately? I strongly recommend, in your leisure time, taking a look at some of the more recent CD-ROM games, such as Doom, Virtuoso, Cyberwar, or educational games such as 3D Dinosaurs. Now consider the Internet, and the connectivity it has achieved so far. Put this all together, sit back, relax and let us travel a little way forward in time.

You get out of bed (let's assume it is morning), take a quick run around the park, shower and breakfast (just like we all do every morning). Go to your study and sit at your "computer". It's display shows a room, 3 dimensional, with a number of doors. The doors are labelled: shops, office, leisure, transporter. You focus your eye on the door you wish to go through, and move over towards it. You head for the door labelled shops, open the door and look down the street. You see rows of shops. Close by are your favourite shops, the ones you tend to visit most. You move over to the clothes shop - it has an interesting display today.

The display in the window shows some of their latest additions in the styles you normally go for. You go in, it's like entering the Tardis (for younger readers, this was Dr Who's time machine which was far larger inside than outside). You are the only person in the shop, apart from the assistant standing behind the counter. You see the complete range of clothes on dummies of yourself, no need to try things on, see for yourself what you look like. The system would cope with the fact that you are not the shape you like to think you are by



knowing your real dimensions.

You like one of the outfits but would like a minor change to the cut. You go to the counter and wait for the assistant. The assistant acknowledges you, indicating that she will be about one minute (this is due to her being engaged with a customer in another personalised virtual store). While you are waiting, you pull down a menu window with the blink of an eye, check your financial status.....oh dear, and start writing some notes on a project you are working on at present. The assistant becomes free, you close your window and discuss the changes, they are made instantly. You agree on a price, your bank asks if you wish to proceed with the monetary transfer and asks for your personal code to verify it.

Its time for work, so you head over to the virtual transporter, enter into it and set its destination to Office. Arriving there you receive messages relating to the business you need to address today. You need to think about a particular topic and would like to be undisturbed in a more relaxing climate, so you head for the "Great Outdoors" door. Here you have the option of the sea, a wood, a forest, the hills, the mountains. You select a wood, the time of year as spring, and find yourself a nice position to sit and ponder, oh, not forgetting to set your system to "DO NOT DISTURB".....

.....You've finished for today, walk to the transporter, head for the leisure area and take a look at the cinema, the new releases are shown on the front. Of course you can go in and watch any film that was ever produced. At this point the screen freezes, with the message "General Protection Failure", and you wake up.

None of this is new. The Internet gives the connectivity, the latest generation of PCs now have sound and outstanding graphic capabilities as standard. The performance is not all there but the technology exists and is awaiting the commercial drive.

You can take many aspects of the scenario I have painted further. Many further enhancements will be made to make the whole operation smoother and more natural. The action of moving yourself through buildings, down corridors and through doors is natural to everybody, no languages or interfaces to learn. It opens the whole business of using a Cyberland to everybody.

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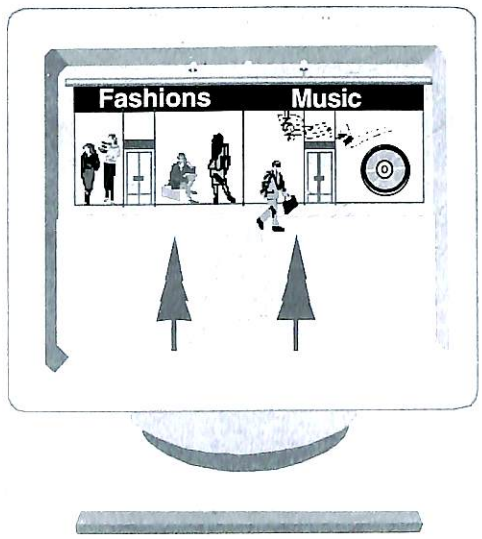

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Money for nothing and your stacks for free

Or, why should I pay for 'free' software?

TCP/IP stacks for use on PCs have fast become a commodity item, especially with the knowledge that Microsoft will provide basic TCP/IP with its operating systems and others already provide cheap site licences.

For a while now, NetManage has adopted the approach of concentrating on the applications rather than the protocol stack, and making their applications operate over a standard interface used by most TCP/IP systems on Windows, Winsock. So they are prepared for the fact that the TCP/IP protocol stack will become a standard feature of operating systems.

This then begs the question, will the TCP/IP applications also become part of the operating system? Some will, over time, but we need to look at their quality, or functionality. For example, there is a word processor package available with Windows 'Write'. But most people buy a word processor package because they need greater functionality; we will see the same effect with TCP/IP and Internet applications.

NetManage's Chameleon now has 42 applications including diagnostic tools and an excellent set of applications. It also comes in two forms: Chameleon, the full package (with an optional NFS), and Internet Chameleon, which is a cut down version of the full package designed to suit the dial-in Internet market. Internet Chameleon includes more applications than most users would require, but not the full suite expected to be used on a LAN.

So, we don't see "free" TCP/IP stacks as a significant threat to the TCP/IP application package business in the short term, and anybody who has decided to use freeware which they have found somewhere, deserves everything they get. We work to find good quality commercial packages that are fully supported and have planned development paths.

If you require any further information on TCP/IP applications, call us or tick the box on the back page of this newsletter.

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WAIS...untangle your Web

Just one advantage of the WAIS server is that it can index all forms of information irrespective of what platform it is on, and still provide HTML access to the infomation.

So, data on a NetWare server can appear as Web information through a HTML page, using WAIS. As information is updated on the Novell server it appears in HTML format within minutes; removing the need for a lot of lengthy editing and copying of information from one format to another.

An example of a large database would be catalogue product availablility, information required both internally and externally. Putting this up as a Web server and updating this with a HTML editor would take up too much time. If a system already exists for storing and updating such a database, WAIS server checks the information, whatever type of server it may be on, and provides indices into it for quick searching, and making it available within minutes of this action.

Integralis can provide you with more information on WEB and WAIS servers and clients, for your internal use, or for Internet connectivity. Tick the WEB/WAIS box on the back of this newsletter for more information.

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The future from Games

Games open up new interfaces to computing, making computers themselves more acceptable. I have known people who were frightened of computers and what they could do. The up and coming generations embrace them as openly as we do radio, or television.

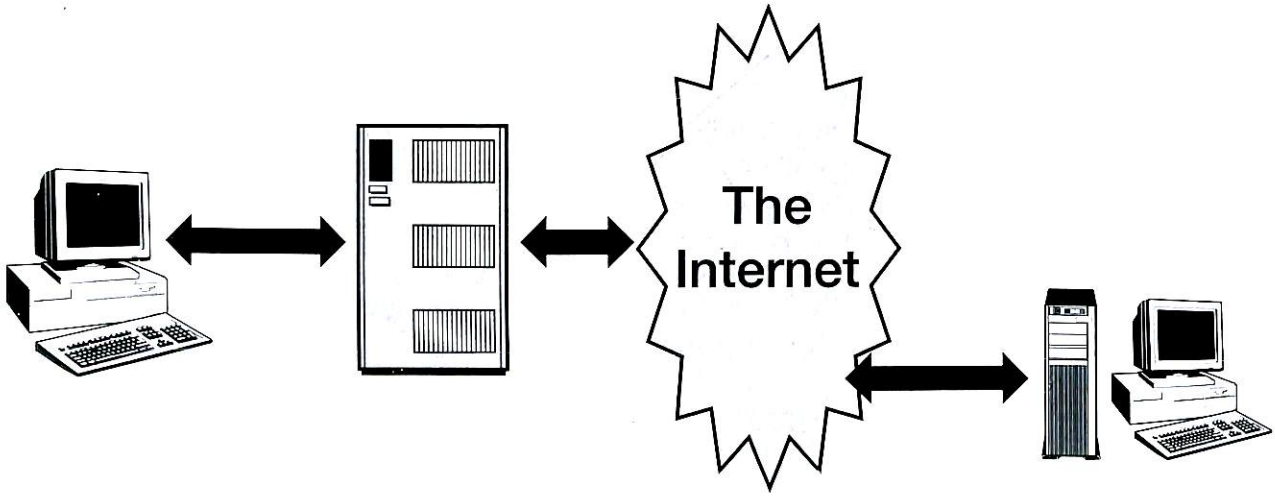
I am sure you can find some flaws in this scenario. However, the momentum is there, the clock is ticking. I would like to hear your ideas on what the future would look like, including some of the pitfalls.

Watch this Cyberspace

K. Washburn

Security and the Internet

Security within the Internet is a topical subject, so let's have a look at the issues.



The Internet was designed to provide connectivity for a research and academic environment, where information exchange and open access are important. However, with increased business use of the Internet, commercial networks are being attached.This allows all users to access services on the Internet, but it also potentially allows hackers on the Internet to access computers on these private networks.

There are a number of simple controls which reduce the risk of being hacked to an acceptable level. Acceptable is a relative term as the level of security comes down to a cost, benefit, risk analysis. You need to appreciate what it's worth to secure a system before you start paying for security to protect it. Some people have found it cost effective to put alarms on their houses, but how many have put camera systems and infra-red fences or even 8 Metre high walls with razor wire on the top?

Connecting a network to an Internet, in its most simple form, is through use of a router. This handles the necessary routing between your internal network and the remote networks on the Internet. Whilst a router can provide a limited level of security, it is not sophisticated enough to prevent serious hackers. To make security tighter, we need to look at the network architecture of a site and then consider the placement of firewall systems. With simple changes in network architecture, most networks can be secured to a high degree with firewalls and routers.

First let us consider possible requirements for connectivity with the Internet. You will have users who wish to access services on the Internet, and you may have services you wish to provide on the Internet.

For users going out, most organisations want complete connectivity; but for clients gaining access to their services, most want access strictly limited.

So what is a firewall? They come in two basic flavours: the application gateway and the packet filter. The application gateway effectively emulates the server system. You connect to the gateway, enter a user-id and password and access to certain host services on the network will be provided. On the application gateway you will need gateway software for each service you make available, be it Telnet, Web services, FTP, etc.

The packet filter has the benefit of providing a transparent service to users. It monitors all frames to ensure they conform to certain rules. If they do not they are blocked. Such systems can be configured to allow only very specific access to hosts and services, and they are designed to cater for known flaws in the security of Internet services.

With all security systems, sensible procedures are also very important. With proper use of firewalls, routers, appropriate network architecture and sensible procedures it is possible to produce a highly secure system which will allow users the freedom to access services, while securing their own valuables.

At Integralis we constantly deal with the issues of securing systems. If you would like to talk to us about security, or evaluate any products in this area, tick the box at the back of this newsletter or call us. We will be glad to help.

Kevin Washburn

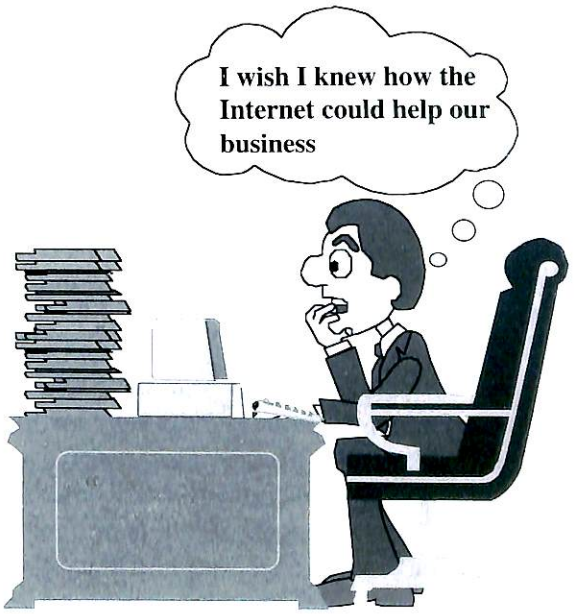
Internet and TCP/IP Seminars

With the vast amount of information being written about the Internet at the moment it's very easy to amass a collection of magazines and literature on the subject that all too soon becomes an unreadable mountain on your desk. You want to plough your way through it but something more important always comes along and the pile grows. Meanwhile the Internet continues to expand rapidly and your company continues to miss out - not only an invaluable asset to information communications, but also a powerful marketing tool.

If only you could take a day out and have someone unravel the mysteries of the Internet so you could begin your voyage on the Information Superhighway with confidence, having a good knowledge of the benefits and potential pitfalls.

It's here that Integralis may just have the solution to your problems. They run regular seminars on the Internet in conjunction with Internet magazine to complement their already successful TCP/IP seminar. The first half of the day provides an overview of TCP/IP since this is the main protocol used on the Internet. There are practical demonstrations and the seminar covers TCP/IP architecture, management, addressing, applications, protocols, configuration and common problems you may encounter. This will be especially useful for people wanting to gain an appreciation of the protocol or anybody involved in evolving a communications strategy using TCP/IP.

The second half of the day is devoted to using the Internet for your business needs. It explains exactly what the Internet is, how to connect to it and what it can do for your business. There are demonstrations showing how to connect through Archie, read NEWS, make Gopher queries, find a service with Veronica and use Web browsers. The seminar also covers security issues as well as Web servers. Each of these seminars is independent and you can attend both or the one which best suits your needs. At only £95 for the day or £60 for the half day can you afford not to attend?!



For further information please call Integralis or tick the box below.

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